

ICS 3702-88

Terms of Reference
Intelligence Community Review of US Capabilities
to Monitor Nuclear Tests

Background:

In November 1987, the HPSCI issued a majority report on intelligence support to arms control based on extensive hearings from arms control and technical experts. These hearings emphasized the crucial role of treaty monitoring by US intelligence in the verification process of any arms control agreement between the US and the Soviet Union. [redacted]

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The HPSCI particularly emphasized its concern about US intelligence capabilities to monitor Soviet nuclear detonations within the context of present and proposed US/USSR nuclear test ban treaties. In fact several key recommendations formulated by the HPSCI relate specifically to this arms control monitoring issue. [redacted]

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Since the HPSCI is one of our Oversight Committees, it is important to pay attention to any of its concerns. Thus, the Requirements and Evaluation Office, Intelligence Community Staff--acting as executive agent for the ICS and ACIS/SAMWG--has been assigned the responsibility of preparing a joint Intelligence Community study that will examine and evaluate the problems raised by the HPSCI regarding US intelligence capabilities to monitor Soviet nuclear detonations. The HPSCI will be apprised of this effort. [redacted]

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Purpose:

This study will evaluate the key recommendations in the HPSCI report that pertain specifically to US intelligence nuclear monitoring capabilities, and recommend initiatives that would enhance these capabilities, and our management of them. Specifically, the study will address HPSCI concerns about: the requirements process, collection (technical) capabilities, analytical capabilities, and management issues vital to US intelligence for effective monitoring of Soviet nuclear detonations. [redacted]

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This study will not attempt to assess the strategic military significance of arms control compliance issues, which, although extremely important, is primarily the responsibility of other branches within the executive branch. [redacted]

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Focus:

This Intelligence Community study will focus strictly on the key HPSCI recommendations that bear on nuclear test ban monitoring. They are as follows: [] 25X1

- o US intelligence should initiate a comprehensive survey of its requirements for technical personnel for nuclear test ban monitoring and report its findings to the Congressional Intelligence Oversight Committees. (Recommendation 3) [] 25X1
- o Executive branch agencies responsible for arms control policy formulation should issue preliminary guidance for monitoring possible reduced thresholds or a comprehensive test ban so that agencies researching future technical options can make informed choices regarding their research and hardware development programs. (Recommendation 4) [] 25X1
- o A comprehensive review should be undertaken by US intelligence of upgrades planned for the Atomic Energy Detection System. Improved management and leadership among responsible agencies is needed to ensure that these upgrades include the latest seismological techniques applicable to nuclear test monitoring. (Recommendation 5) [] 25X1
- o A review of test ban monitoring research conducted to date should be performed to determine where the US stands on its capability to deploy in-country regional seismic monitoring systems as part of a comprehensive nuclear testing monitoring network. Shortfalls in research and efforts required to alleviate them should be identified and integrated into a coherent plan for US nuclear test ban verification research. (Recommendation 6) [] 25X1
- o The executive branch should examine the concept of a single interagency governmental entity responsible for all nuclear testing related intelligence. This examination should probe how critical research areas could be better identified and how future requirements can be more effectively formulated and implemented. (Recommendation 7) [] 25X1

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Report Outline:

The outline of the report is:

o Introduction

- Purpose
- Problem statement
- Objective
- Scope of study []

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o Policy Framework

- Current US administration policy on US/USSR nuclear test ban monitoring, to include what has recently been negotiated at the Nuclear Testing Talks. []
- Possibility of submitting to the Senate for ratification the Threshold Test Ban Treaty (TTBT) and the Peaceful Nuclear Explosions Treaty (PNET). []

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o Requirements

- Assess nuclear intelligence requirements and priorities in light of current arms control administration policy. []
- Determine extent of conformance of these requirements to arms control policy. []

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o Analytical Capabilities

- Survey the need for technical personnel to exploit, analyze, and report technical data on nuclear test monitoring. []

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- Assess current analytical resources and capabilities supporting the production of intelligence on nuclear testing. [] 25X1
- Identify deficiencies in analytical skill areas, and ways to reduce them. [] 25X1
- Identify definitive analytic methods and techniques necessary to support test ban monitoring along with hardware/software means for accomplishing analysis. [] 25X1

o Management Issues

- Evaluate effectiveness of the current management structure for collection and analysis of intelligence related to monitoring limitations on nuclear testing. [] 25X1
- Analyze the efficacy of establishing a single interagency governmental entity responsible for nuclear testing related intelligence. [] 25X1
- Evaluate the impact of FY 89 budget cuts on investment strategies for nuclear test ban monitoring. [] 25X1
- Develop a plan for the direction, prioritization and proper funding of research and development of new technologies for US nuclear test ban monitoring. [] 25X1

o Initiatives for Improvement

- Near-term initiatives
- Long-term initiatives

Organizational Structure:

Because of the range of issues and technical areas involved in this study, an ad hoc Community steering group, chaired by D/REO will oversee the study. The steering group will be composed of appropriate members from REO/ICS, JAEIC, MASINT Committee, ACIS, and SAMWG. [] 25X1

The Nuclear Intelligence Panel (NIP) will make a contribution to this study in the technical area. The NIP will provide a summary report on current capabilities, or capabilities that could be developed to monitor a TTBT with a 150 KT limit, with accuracy factors of 1.5 and 1.3. The NIP report will also examine how far down in yield these capabilities can be extended without running into trouble. [] 25X1

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Schedule:

It is anticipated that this study would be completed by 15 May 1988 by adhering to the following schedule:

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- o Initial steering group meeting 24 March
- o Review of initial draft by steering group 16 May
- o Status report to the HPSCI and DDCI 19 May
- o Final report forwarded to DDCI 20 June

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